

REFERENCES

- DAY, F. (1875-1878): The Fishes of India, being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma and Ceylon. William Dawson & Sons, London, 778 pp., 195 pls (Issued in 4 parts, for dating see Whitehead and Talwar 1976).
- (1889): The Fauna of British India, including Ceylon and Burma. Fishes, 1. Taylor & Francis, London, 584 pp.
- HAMILTON-BUCHANAN, F. (1822) An account of the fishes of the river Ganges and its branches. Edinburg & London. vii + 405 pp.
- HORA, S. L. (1928): Remarks on Gunther-Day controversy regarding the specific validity of Hamilton-Buchanan's *Cyprinus chagunio*. *J. Proc. Asiat. Soc. Beng.*, (N.S.), 23(3): 415-417.
- HORA, S. L. & MUKERJI, D. D. (1933): Further notes on Hamilton-Buchanan's *Cyprinus chagunio*. *J. Proc. Asiat. Soc. Beng.*, (N.S.), 27(1): 137-139.
- JAYARAM, K. C. (1981): The Freshwater Fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka. Handb. Zool. Survey India No. 2, xxii + 475 pp.
- MIRZA, M. R. (1975): Freshwater fishes and zoogeography of Pakistan, *Bijd. Tot. Dierk.*, 45: 143-180.
- MUKERJI, D. D. (1934): Report on Burmese fishes collected by Lt.-Col. R. W. Burton from the tributary streams of the Mali Hka River of the Myitkyina District (Upper Burma). *J. Bombay nat. Hist. Soc.*, 37(1): 38-80.
- PRASHAD, B. & MUKERJI, D. D. (1929): The fish of the Indawgyi Lake and the streams of the Myitkyina District (Upper Burma). *Rec. Indian Mus.*, 31(3): 161-223.
- SMITH, H. M. (1938): *Chagunius*, a new genus of Asiatic Cyprinoid fishes. *Proc. biol. Soc. Wash.*, 51: 157-158.
- (1945): The fresh-water fishes of Siam, or Thailand. *Bull. U.S. natn. Mus.*, (188): 1-622.
- WHITEHEAD, P. J. P. & TALWAR, P. K. (1976): Francis Day (1829-89) and his collections of Indian fishes. *Bull. Br. Mus. nat. Hist.* (Hist. Ser.), 5: 1-189.

THREE NEW SPECIES AND A NEW VARIETY OF
MONOCOTYLEDONS FROM SAVANTWADI, MAHARASHTRA¹

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(With two plates & four text-figures)

During the floristic studies of Savantwadi taluka, Sindhudurg Dist, Maharashtra, I came across a number of interesting plants. Critical studies on these specimens at Blatter Herbarium, has revealed three new species and a new variety.

1. *Pycreo bolei* sp. nov.

Herba cespitosa \pm 30 cm alta foliis linearibus costis prominentibus fuscis. Inflorescentia spicis compactis sessilibus stellatis linearibus stramineis bractatis. Glumae ovatae aristatae

carinatae. Stamina dua parva filamentis tenuibus. Nux oblanceolata apiculata compressa paginis tuberculatis longitudinalibus.

Rare in oryzae aperis agribus.

Holotypus: SMA-3438, lectus Satarda — Savantwadi 22-10-1980.

Similis Pycreo globoso (All.) Reich externo aspectu sed differt spiculis acuminatis facile separabilibus et rhachide plana et parvis staminibus.

Tufted herb, \pm 30 cm tall. Stems striate. Leaves flat, 27-30 cm long, linear, narrowing to the apex, glabrous with prominent brown midrid. Inflorescence of compact, sessile, stellate, linear spikes, bracteate. Rays 3-4 in

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NEW DESCRIPTIONS

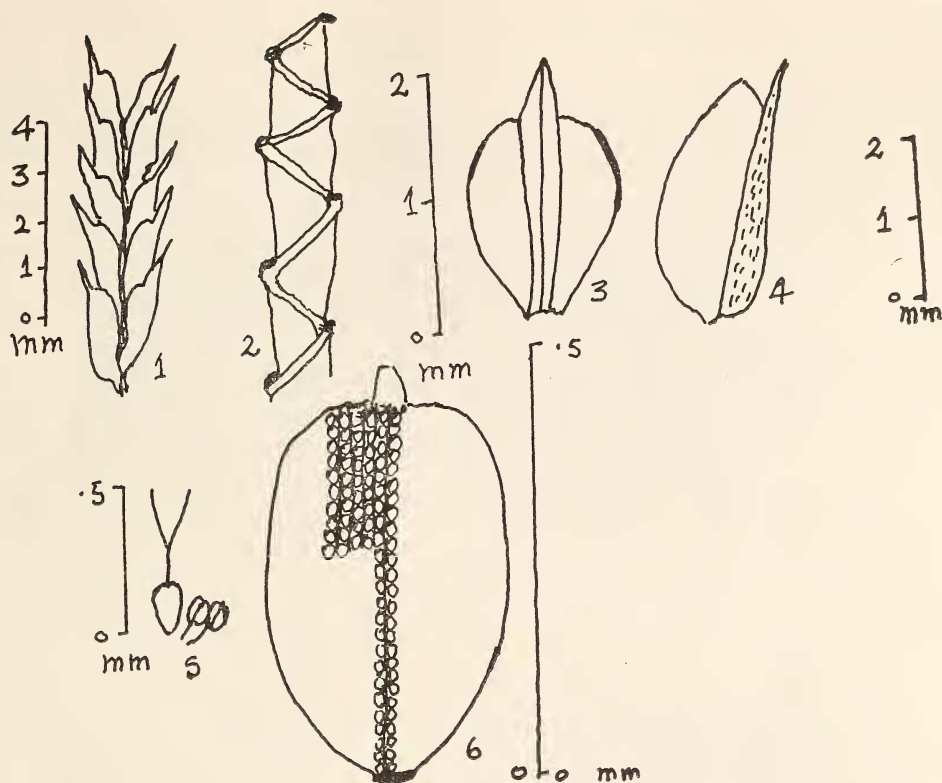


Fig. 1. *Pycreus bolei* sp. nov.: 1. Spikelet; 2. Rachis; 3. Glume (back view); 4. Glume (side view); 5. Pistil & Stamens; 6. Nut.

number, 4.5-5 cm long, slender, glabrous. Bracts 4-5, glabrous, leaf-like with prominent midrib, 15-20 cm long, 2-3 mm wide, imbricating at the base, curling at the apex after drying. Spikes linear, sessile, 0.7-1.3 cm long, 0.2-0.3 mm wide, straw coloured with 25-40 spikelets. Rachilla not winged, glabrous. Glumes ovate, 0.5-1 mm long, 0.5-0.7 mm wide, aristate, keeled. Keels brown, hyaline on the margins. Stamens 2, small, with slender filaments. Ovary oblanceolate; styles as long as ovary; stigmas 2, equal to the length of the style. Nut oblanceolate, compressed, shortly apiculate, marked with longi-

tudinal rows of tubercles on the surface.

Rare herb in open paddy fields near river banks.

Flowering: October-November. *Locality*: Satarda (Savantwadi).

Holotype: SMA — 3438.

Pycreus bolei sp. nov. resembles *Pycreus globosus* (All.) Reich. in external appearance, but differs from it in the presence of easily detachable, acuminate spikelets and also in the presence of flat rachis and small stamens.

This species is named after Prof. P. V. Bole, for the guidance and encouragement

shown during my taxonomic studies on Flora of Savantwadi.

2. *Pycreus lanceolatus* sp. nov.

Annual 5-8 cm alta cespitosa foliis radicalibus costis crassis et 5-6 venis prominentibus lateralibus in base. Inflorescentia eius spicis compactis in capitibus. Spicae distichae cinerascens. Spiculae oblongae naviculares carinatae; carinae brunneolae spectantes rhachillas. Fila plana staminum longiora pistillo. Nux oblongata paginis spisse tuberculatis.

Rare in humidis agribus ozyzae.

Holotypus: SMA-162, lectus Charatha — Savantwadi, 25-5-1977.

Similis *Juncello pygmaeo* (Retzb.) Clarke (= *Cyperus pygmaeus* Rottb.) externo aspectu sed differt spiculis distichis et carinis alatis destitutis.

Similis est *P. bolei* sp. nov. externo aspectu sed rhachide prominenti cylindrica destituta et habens carinas brunneolas spectantes rhachillam at fila plana longiora pistillo ad maturitatem.

Tufted annual, 5-8 cm tall, with number

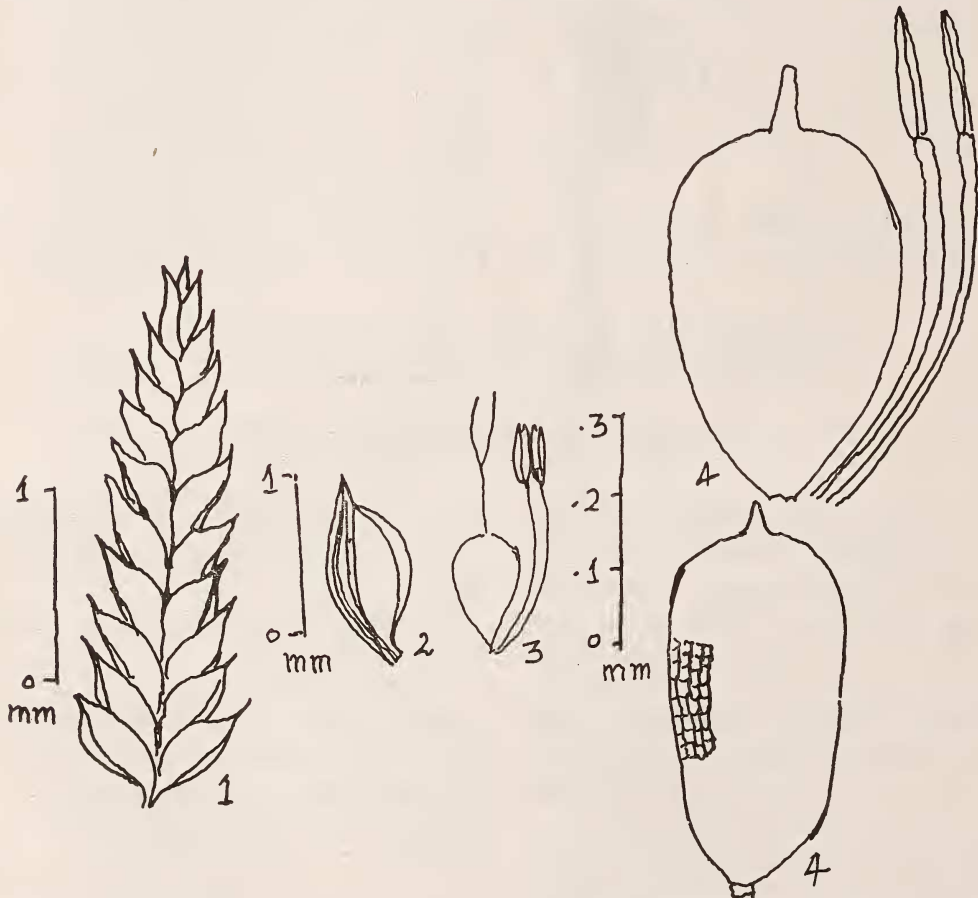
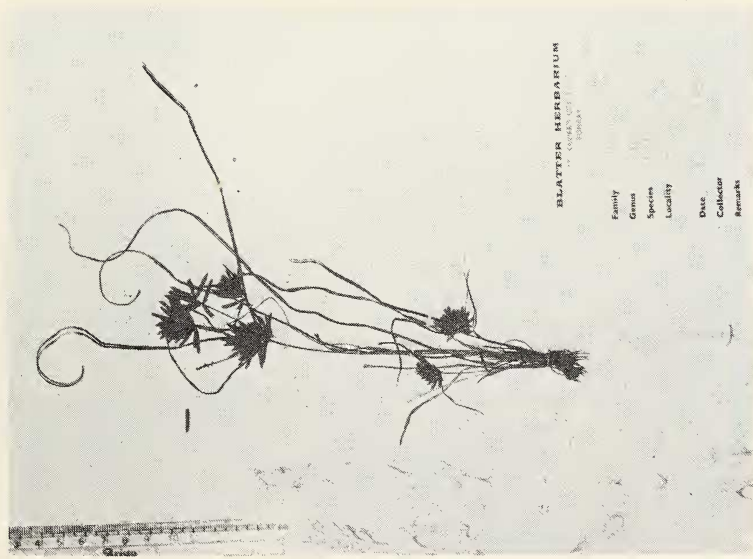


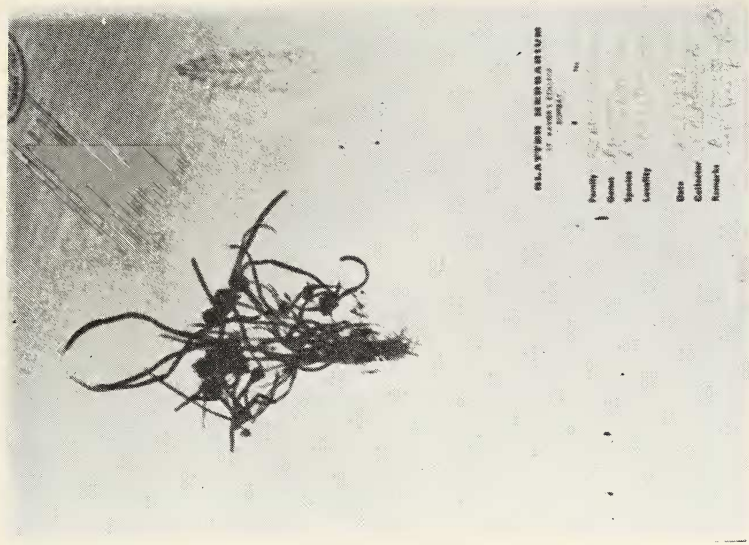
Fig. 2. *Pycreus lanceolatus* sp. nov.: 1. Spikelet; 2. Glume; 3. Pistil and Stamens; 4. Variable shape of nuts; 4. Nut and mature stamens.

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 Almeida: New species & a new variety.

PLATE I



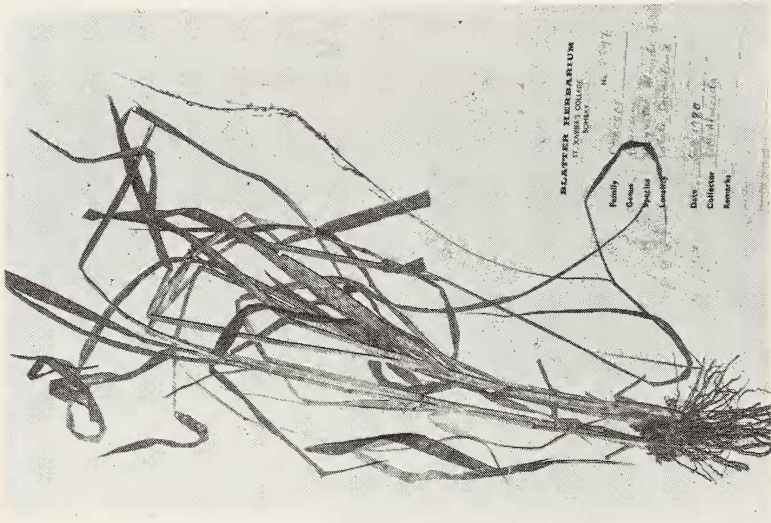
Pycneus bolei sp. nov. — Habit.



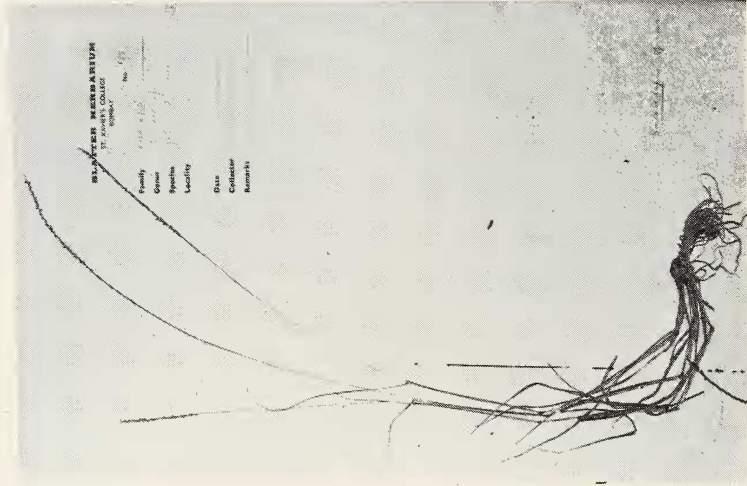
Pycneus lanceolotii sp. nov. — Habit.

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Almeida: New species & a new variety

PLATE 2



Panicum johnii sp. nov. — Habit.



Sacciolepis indica (Linn.) Chase var. *intermedia* var. nov. — Habit.

NEW DESCRIPTIONS

of slender fibrous roots. Leaves radical, linear, flat, glabrous, 8-10 cm long, 1.5-2 mm broad, tapering to the apex, broader at the base with thick mid-vein and 5-6 prominent lateral veins at the base; margins thick. Scape 5-7 cm long, dull grey, striate, flat, glabrous. Inflorescence of compact spikes forming heads, bracteate. Bracts 3-4, leaf-like, imbricating, much exceeding the rachis, 6-8 cm long, 1-2 mm broad at the base, narrowing to the apex to a point. Midrib thick and prominent, lateral veins faint. Margins thick, glabrous. Rays 3-5 in number, 1-1.5 cm long, striate, glabrous. Spikes radiating, dull grey, distichous. Spikelets oblong, compactly arranged on rachilla, boat-shaped, acute, glabrous, keeled; keel membranous and hyaline on the sides

facing the rachilla, brownish towards outside. Stamens 2, much longer than the ovary, projecting beyond the style on maturation; anthers linear; filaments flat. Ovary obovoid; style slender; stigma 2-fid. Nut oblong, shortly beaked, with compactly arranged tubercles on the surface.

Rare sedge in wet rice fields.

Flowering: May. Locality: Charatha (Savantwadi)

Holotype: SMA-162.

Pycreus lanceolatus sp. nov. resembles *Juncelus pygmaeus* (Rottb.) Clarke (= *Cyperus pygmaeus* Rottb.) in external appearance, but differs from it in the distichous arrangement of spikelets on the rachis and in the absence of winged keel of the spikelets. *P. lanceolatus* also

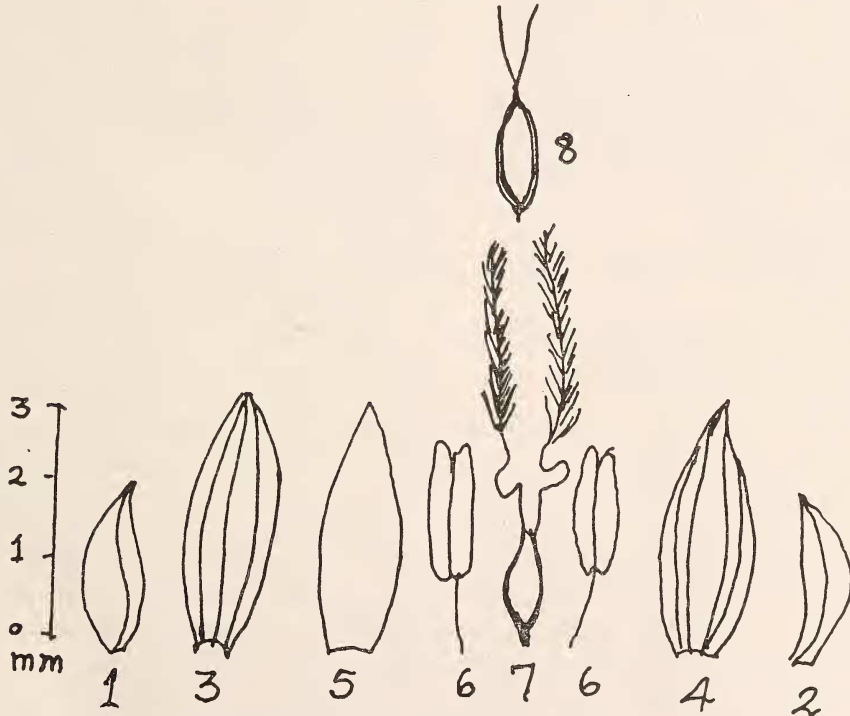


Fig. 3. *Panicum johnii* sp. nov.: 1. Outer glume; 2. Inner glume; 3. Outer lemma; 4. Inner lemma; 5. Palea; 6. Stamens; 7. Pistil; 8. Caryopsis.